

# SEQUENCE LISTING

<110> Turner, C. Alexander Jr.  
 Hilbun, Erin  
 Donoho, Gregory  
 Scoville, John  
 Wattler, Frank  
 Friedrich, Glenn  
 Abuin, Alejandro  
 Zambrowicz, Brian  
 Sands, Arthur T.

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Gly Gly Trp Ser Pro Ala Asp Ser Asn Ala Gln Gln Trp Leu Gln Met
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Asp Leu Gly Asn Arg Val Glu Ile Thr Ala Val Ala Thr Gln Gly Arg
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Pro Ser Gly Lys Ile Gly Met Arg Val Glu Val Tyr Gly Cys Ser Tyr
165     170     175
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Phe Lys Ser Met Gln Gly Asp Gly Val Leu Phe His Gly Glu Gly Gln
210     215     220
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225     230     235     240
His Leu Asn Leu Gly Asp Ser Lys Ala Arg Leu Ser Ser Ser Leu Pro
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Ser Ala Thr Leu Gly Ser Leu Leu Asp Asp Gln His Trp His Xaa Val
260     265     270
Leu Ile Glu Arg Val Gly Lys Gln Val Asn Phe Thr Val Asp Lys His
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Thr Gln His Phe Arg Thr Lys Gly Glu Thr Asp Ala Leu Asp Ile Asp
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Tyr Glu Gly Asn Val Thr Phe Ser Cys Ser Glu Pro Gln Ile Val Pro
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Cys	Glu	Cys	Gly	Leu	Asp	Glu	Ser	Cys	Leu	Asp	Ile	Gln	His	Phe	Cys		
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Ser	Thr	Arg	Glu	Thr	Ser	Glu	Glu	Gly	His	Phe	Arg	Leu	Gln	Leu	Asn	850	855	860
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Glu	Arg	Ala	Lys	Val	Thr	Ser	Gly	Val	Arg	Pro	Gly	Cys	Pro	Gly	His	900	905	910
Cys	Ser	Ser	Tyr	Gly	Ser	Ile	Cys	His	Asn	Gly	Gly	Lys	Cys	Val	Glu	915	920	925
Lys	His	Asn	Gly	Tyr	Leu	Cys	Asp	Cys	Thr	Asn	Ser	Pro	Tyr	Glu	Gly	930	935	940
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Glu	Val	Ala	Lys	Ala	Asn	Ala	Met	Gly	Phe	Ala	Gly	Cys	Met	Ser	Ser	1105	1110	1115
Val	Gln	Tyr	Asn	His	Ile	Ala	Pro	Leu	Lys	Ala	Ala	Leu	Arg	His	Ala	1125	1130	1135
Thr	Val	Ala	Pro	Val	Thr	Val	His	Gly	Thr	Leu	Thr	Glu	Ser	Ser	Cys	1140	1145	1150
Gly	Phe	Met	Val	Asp	Ser	Asp	Val	Asn	Ala	Val	Thr	Thr	Val	His	Ser	1155	1160	1165
Ser	Ser	Asp	Pro	Phe	Gly	Lys	Thr	Asp	Glu	Arg	Glu	Pro	Leu	Thr	Asn	1170	1175	1180
Ala	Val	Arg	Ser	Asp	Ser	Ala	Val	Ile	Gly	Gly	Val	Ile	Ala	Val	Val	1185	1190	1195
Ile	Phe	Ile	Ile	Phe	Cys	Ile	Ile	Gly	Ile	Met	Thr	Arg	Phe	Leu	Tyr	1205	1210	1215

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Tyr	Gly	Ser	Ser	Asp	Trp	Val	Thr	Ser	Tyr	Ser	Leu	Met	Phe	Ser	Asp			
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Thr	Gly	Arg	Asn	Trp	Lys	Gln	Tyr	Lys	Gln	Glu	Asp	Ser	Ile	Trp	Thr			
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Phe	Ala	Gly	Asn	Met	Asn	Ala	Asp	Ser	Val	Val	His	His	Lys	Leu	Leu			
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His	Ser	Val	Arg	Ala	Arg	Phe	Val	Arg	Phe	Val	Pro	Leu	Glu	Trp	Asn			
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Lys	Ser	Asp	Val	Ala	Asp	Phe	Asp	Gly	Arg	Ser	Ser	Leu	Leu	Tyr	Arg			
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Phe	Asn	Gln	Lys	Leu	Met	Ser	Thr	Leu	Lys	Asp	Val	Ile	Ser	Leu	Lys			
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Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp  
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Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr  
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Phe Ala Gly Asn Met Asn Ala Asp Ser Val Val His His Lys Leu Leu  
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<211> 582

<212> PRT

<213> homo sapiens

<220>

<221> VARIANT

<222> (1)...(582)

<223> Xaa = Any Amino Acid

<400> 12

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Pro Leu Ala Ser Leu Leu Ser Pro Met Ala Phe Ser Ser Ser Ser Asp
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Leu Thr Gly Thr His Ser Pro Ala Gln Leu Asn Trp Arg Val Gly Thr
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Gly Gly Trp Ser Pro Ala Asp Ser Asn Ala Gln Gln Trp Leu Gln Met
65          70          75          80
Asp Leu Gly Asn Arg Val Glu Ile Thr Ala Val Ala Thr Gln Gly Arg
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Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp
          100          105          110
Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr
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Phe Ala Gly Asn Met Asn Ala Asp Ser Val Val His His Lys Leu Leu
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His Ser Val Arg Ala Arg Phe Val Arg Phe Val Pro Leu Glu Trp Asn

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          180          185          190
Phe Asn Gln Lys Leu Met Ser Thr Leu Lys Asp Val Ile Ser Leu Lys
          195          200          205
Phe Lys Ser Met Gln Gly Asp Gly Val Leu Phe His Gly Glu Gly Gln
          210          215          220
Arg Gly Asp His Ile Thr Leu Glu Leu Gln Lys Gly Arg Leu Ala Leu
225          230          235          240
His Leu Asn Leu Gly Asp Ser Lys Ala Arg Leu Ser Ser Ser Leu Pro
          245          250          255
Ser Ala Thr Leu Gly Ser Leu Leu Asp Asp Gln His Trp His Xaa Val
          260          265          270
Leu Ile Glu Arg Val Gly Lys Gln Val Asn Phe Thr Val Asp Lys His
          275          280          285
Thr Gln His Phe Arg Thr Lys Gly Glu Thr Asp Ala Leu Asp Ile Asp
290          295          300
Tyr Glu Leu Ser Phe Gly Gly Ile Pro Val Pro Gly Lys Pro Gly Thr
305          310          315          320
Phe Leu Lys Lys Asn Phe His Gly Cys Ile Glu Asn Leu Tyr Tyr Asn
          325          330          335
Gly Val Asn Ile Ile Xaa Leu Ala Lys Arg Arg Lys His Gln Ile Tyr
          340          345          350
Thr Val Gly Asn Val Thr Phe Ser Cys Ser Glu Pro Gln Ile Val Pro
          355          360          365
Ile Thr Phe Val Asn Ser Ser Gly Ser Tyr Leu Leu Leu Pro Gly Thr
          370          375          380
Pro Gln Ile Asp Gly Leu Ser Val Ser Phe Gln Phe Arg Thr Trp Asn
385          390          395          400
Lys Asp Gly Leu Leu Leu Ser Thr Glu Leu Ser Glu Gly Ser Gly Thr
          405          410          415
Leu Leu Leu Ser Leu Glu Gly Gly Ile Leu Arg Leu Val Ile Gln Lys
          420          425          430
Met Thr Glu Arg Val Ala Glu Ile Leu Thr Gly Ser Asn Leu Asn Asp
          435          440          445
Gly Leu Trp His Ser Val Ser Ile Asn Ala Arg Arg Asn Arg Ile Thr
          450          455          460
Leu Thr Leu Asp Asp Glu Ala Ala Pro Pro Ala Pro Asp Ser Thr Trp
465          470          475          480
Val Gln Ile Tyr Ser Gly Asn Ser Tyr Tyr Phe Gly Gly Val Cys Gln
          485          490          495
Thr Thr Val Asn Met Glu Glu Ala Ala Pro Ser Pro Gly Leu Pro Ser
          500          505          510
Ile Val Thr Ala Val Thr Gln Val Thr Leu Val Pro Pro Ala Thr Thr
          515          520          525
Pro Ser Thr Ser Asn Pro Ala Arg Cys Thr Gly Thr Arg Gly Ile Gln
          530          535          540
Pro Ala Ser Ser Thr Ser Thr Gln Met Ala Ala His Trp Asp Leu
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Ser Arg Cys Thr Ala Ile Ser Leu Arg Thr Arg Ser Gly His Gln Cys
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 <213> homo sapiens

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 <213> homo sapiens

<220>  
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 <223> Xaa = Any Amino Acid

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 Pro Leu Ala Ser Leu Leu Ser Pro Met Ala Phe Ser Ser Ser Ser Asp  
 35 40 45  
 Leu Thr Gly Thr His Ser Pro Ala Gln Leu Asn Trp Arg Val Gly Thr  
 50 55 60  
 Gly Gly Trp Ser Pro Ala Asp Ser Asn Ala Gln Gln Trp Leu Gln Met  
 65 70 75 80  
 Asp Leu Gly Asn Arg Val Glu Ile Thr Ala Val Ala Thr Gln Gly Arg

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Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp					
	100		105		110
Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr					
	115		120		125
Phe Ala Gly Asn Met Asn Ala Asp Ser Val Val His His Lys Leu Leu					
	130		135		140
His Ser Val Arg Ala Arg Phe Val Arg Phe Val Pro Leu Glu Trp Asn					
	145		150		155
Pro Ser Gly Lys Ile Gly Met Arg Val Glu Val Tyr Gly Cys Ser Tyr					
	165		170		175
Lys Ser Asp Val Ala Asp Phe Asp Gly Arg Ser Ser Leu Leu Tyr Arg					
	180		185		190
Phe Asn Gln Lys Leu Met Ser Thr Leu Lys Asp Val Ile Ser Leu Lys					
	195		200		205
Phe Lys Ser Met Gln Gly Asp Gly Val Leu Phe His Gly Glu Gly Gln					
	210		215		220
Arg Gly Asp His Ile Thr Leu Glu Leu Gln Lys Gly Arg Leu Ala Leu					
	225		230		235
His Leu Asn Leu Gly Asp Ser Lys Ala Arg Leu Ser Ser Ser Leu Pro					
	245		250		255
Ser Ala Thr Leu Gly Ser Leu Leu Asp Asp Gln His Trp His Xaa Val					
	260		265		270
Leu Ile Glu Arg Val Gly Lys Gln Val Asn Phe Thr Val Asp Lys His					
	275		280		285
Thr Gln His Phe Arg Thr Lys Gly Glu Thr Asp Ala Leu Asp Ile Asp					
	290		295		300
Tyr Glu Gly Asn Val Thr Phe Ser Cys Ser Glu Pro Gln Ile Val Pro					
	305		310		315
Ile Thr Phe Val Asn Ser Ser Gly Ser Tyr Leu Leu Leu Pro Gly Thr					
	325		330		335
Pro Gln Ile Asp Gly Leu Ser Val Ser Phe Gln Phe Arg Thr Trp Asn					
	340		345		350
Lys Asp Gly Leu Leu Leu Ser Thr Glu Leu Ser Glu Gly Ser Gly Thr					
	355		360		365
Leu Leu Leu Ser Leu Glu Gly Gly Ile Leu Arg Leu Val Ile Gln Lys					
	370		375		380
Met Thr Glu Arg Val Ala Glu Ile Leu Thr Gly Ser Asn Leu Asn Asp					
	385		390		395
Gly Leu Trp His Ser Val Ser Ile Asn Ala Arg Arg Asn Arg Ile Thr					
	405		410		415
Leu Thr Leu Asp Asp Glu Ala Ala Pro Pro Ala Pro Asp Ser Thr Trp					
	420		425		430
Val Gln Ile Tyr Ser Gly Asn Ser Tyr Tyr Phe Gly Gly Val Cys Gln					
	435		440		445
Thr Thr Val Asn Met Glu Glu Ala Ala Pro Ser Pro Gly Leu Pro Ser					
	450		455		460
Ile Val Thr Ala Val Thr Gln Val Thr Leu Val Pro Pro Ala Thr Thr					
	465		470		475
Pro Ser Thr Ser Asn Pro Ala Arg Cys Thr Gly Thr Arg Gly Ile Gln					
	485		490		495
Pro Ala Ser Ser Thr Ser Thr Gln Met Ala Ala Ala His Trp Asp Leu					
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530

<210> 15

<211> 2238

<212> DNA

<213> homo sapiens

<400> 15

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<211> 745

<212> PRT

<213> homo sapiens

<220>

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<223> Xaa = Any Amino Acid

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			20					25					30		
Pro	Leu	Ala	Ser	Leu	Leu	Ser	Pro	Met	Ala	Phe	Ser	Ser	Ser	Ser	Asp
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Leu	Thr	Gly	Thr	His	Ser	Pro	Ala	Gln	Leu	Asn	Trp	Arg	Val	Gly	Thr
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Asp	Leu	Gly	Asn	Arg	Val	Glu	Ile	Thr	Ala	Val	Ala	Thr	Gln	Gly	Arg
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Tyr	Gly	Ser	Ser	Asp	Trp	Val	Thr	Ser	Tyr	Ser	Leu	Met	Phe	Ser	Asp
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Thr	Gly	Arg	Asn	Trp	Lys	Gln	Tyr	Lys	Gln	Glu	Asp	Ser	Ile	Trp	Thr
		115				120						125			
Phe	Ala	Gly	Asn	Met	Asn	Ala	Asp	Ser	Val	Val	His	His	Lys	Leu	Leu
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His	Ser	Val	Arg	Ala	Arg	Phe	Val	Arg	Phe	Val	Pro	Leu	Glu	Trp	Asn
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Lys	Ser	Asp	Val	Ala	Asp	Phe	Asp	Gly	Arg	Ser	Ser	Leu	Leu	Tyr	Arg
			180					185				190			
Phe	Asn	Gln	Lys	Leu	Met	Ser	Thr	Leu	Lys	Asp	Val	Ile	Ser	Leu	Lys
		195					200					205			
Phe	Lys	Ser	Met	Gln	Gly	Asp	Gly	Val	Leu	Phe	His	Gly	Glu	Gly	Gln
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225					230					235				240	
His	Leu	Asn	Leu	Gly	Asp	Ser	Lys	Ala	Arg	Leu	Ser	Ser	Ser	Leu	Pro
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Ser	Ala	Thr	Leu	Gly	Ser	Leu	Leu	Asp	Gln	His	Trp	His	Xaa	Val	
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Gly	Val	Asn	Ile	Ile	Xaa	Leu	Ala	Lys	Arg	Arg	Lys	His	Gln	Ile	Tyr
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Lys	Asp	Gly	Leu	Leu	Ser	Thr	Glu	Leu	Ser	Glu	Gly	Ser	Gly	Thr	
			405					410				415			
Leu	Leu	Leu	Ser	Leu	Glu	Gly	Gly	Ile	Leu	Arg	Leu	Val	Ile	Gln	Lys
			420					425				430			
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Gly Leu Trp His Ser Val Ser Ile Asn Ala Arg Arg Asn Arg Ile Thr				
450		455		460
Leu Thr Leu Asp Asp Glu Ala Ala Pro Pro Ala Pro Asp Ser Thr Trp				
465		470		475
Val Gln Ile Tyr Ser Gly Asn Ser Tyr Tyr Phe Gly Gly Cys Pro Asp				
	485		490	495
Asn Leu Thr Asp Ser Gln Cys Leu Asn Pro Ile Lys Ala Phe Gln Gly				
	500		505	510
Cys Met Arg Leu Ile Phe Ile Asp Asn Gln Pro Lys Asp Leu Ile Ser				
	515		520	525
Val Gln Gln Gly Ser Leu Gly Asn Phe Ser Asp Leu His Ile Asp Leu				
	530		535	540
Cys Ser Ile Lys Asp Arg Cys Leu Pro Asn Tyr Cys Glu His Gly Gly				
545		550		555
Ser Cys Ser Gln Ser Trp Thr Thr Phe Tyr Cys Asn Cys Ser Asp Thr				
	565		570	575
Ser Tyr Thr Gly Ala Thr Cys His Asn Ser Ile Tyr Glu Gln Ser Cys				
	580		585	590
Glu Val Tyr Arg His Gln Gly Asn Thr Ala Gly Phe Phe Tyr Ile Asp				
	595		600	605
Ser Asp Gly Ser Gly Pro Leu Gly Pro Leu Gln Val Tyr Cys Asn Ile				
	610		615	620
Thr Glu Asp Lys Ile Trp Thr Ser Val Gln His Asn Asn Thr Glu Leu				
625		630		635
Thr Arg Val Arg Gly Ala Asn Pro Glu Lys Pro Tyr Ala Met Ala Leu				
	645		650	655
Asp Tyr Gly Gly Ser Met Glu Gln Leu Glu Ala Val Ile Asp Gly Ser				
	660		665	670
Glu His Cys Glu Gln Glu Val Ala Tyr His Cys Arg Arg Ser Arg Leu				
	675		680	685
Leu Asn Thr Pro Asp Gly Thr Pro Phe Thr Trp Trp Ile Gly Arg Ser				
	690		695	700
Asn Glu Arg His Pro Tyr Trp Gly Gly Ser Pro Gly Val Gln Gln				
705		710		715
Cys Glu Cys Gly Leu Asp Glu Ser Cys Leu Asp Ile Gln His Phe Cys				
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Asn Cys Asp Ala Asp Lys Asp Glu Trp				
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<211> 2094

<212> DNA

<213> homo sapiens

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<211> 697

<212> PRT

<213> homo sapiens

<220>

<221> VARIANT

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<223> Xaa = Any Amino Acid

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Pro	Leu	Ala	Ser	Leu	Leu	Ser	Pro	Met	Ala	Phe	Ser	Ser	Ser	Ser	Asp
		35					40					45			
Leu	Thr	Gly	Thr	His	Ser	Pro	Ala	Gln	Leu	Asn	Trp	Arg	Val	Gly	Thr
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Asp	Leu	Gly	Asn	Arg	Val	Glu	Ile	Thr	Ala	Val	Ala	Thr	Gln	Gly	Arg
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Tyr	Gly	Ser	Ser	Asp	Trp	Val	Thr	Ser	Tyr	Ser	Leu	Met	Phe	Ser	Asp
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Thr	Gly	Arg	Asn	Trp	Lys	Gln	Tyr	Lys	Gln	Glu	Asp	Ser	Ile	Trp	Thr
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Phe	Ala	Gly	Asn	Met	Asn	Ala	Asp	Ser	Val	Val	His	His	Lys	Leu	Leu
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Phe Asn Gln Lys Leu	Met Ser Thr Leu Lys Asp Val Ile Ser Leu Lys					
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Phe Lys Ser Met Gln	Gly Asp Gly Val Leu Phe His Gly Glu Gly Gln					
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Arg Gly Asp His Ile	Thr Leu Glu Leu Gln Lys Gly Arg Leu Ala Leu					
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Leu Ile Glu Arg Val	Gly Lys Gln Val Asn Phe Thr Val Asp Lys His					
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Tyr Glu Gly Asn Val	Thr Phe Ser Cys Ser Glu Pro Gln Ile Val Pro					
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Lys Asp Gly Leu Leu	Leu Ser Thr Glu Leu Ser Glu Gly Ser Gly Thr					
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Leu Leu Leu Ser Leu	Glu Gly Gly Ile Leu Arg Leu Val Ile Gln Lys					
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Met Thr Glu Arg Val	Ala Glu Ile Leu Thr Gly Ser Asn Leu Asn Asp					
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Gly Leu Trp His Ser	Val Ser Ile Asn Ala Arg Arg Asn Arg Ile Thr					
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Val Gln Ile Tyr Ser	Gly Asn Ser Tyr Tyr Phe Gly Gly Cys Pro Asp					
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Asn Leu Thr Asp Ser	Gln Cys Leu Asn Pro Ile Lys Ala Phe Gln Gly					
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Cys Met Arg Leu Ile	Phe Ile Asp Asn Gln Pro Lys Asp Leu Ile Ser					
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Val Gln Gln Gly Ser	Leu Gly Asn Phe Ser Asp Leu His Ile Asp Leu					
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Cys Ser Ile Lys Asp	Arg Cys Leu Pro Asn Tyr Cys Glu His Gly Gly					
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Ser Cys Ser Gln Ser	Trp Thr Thr Phe Tyr Cys Asn Cys Ser Asp Thr					
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Ser Tyr Thr Gly Ala	Thr Cys His Asn Ser Ile Tyr Glu Gln Ser Cys					
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Glu Val Tyr Arg His	Gln Gly Asn Thr Ala Gly Phe Phe Tyr Ile Asp					
	545	550		555		560
Ser Asp Gly Ser Gly	Pro Leu Gly Pro Leu Gln Val Tyr Cys Asn Ile					
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Thr Glu Asp Lys Ile	Trp Thr Ser Val Gln His Asn Asn Thr Glu Leu					
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Leu Asn Thr Pro Asp Gly Thr Pro Phe Thr Trp Trp Ile Gly Arg Ser		
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35          40          45
Leu Thr Gly Thr His Ser Pro Ala Gln Leu Asn Trp Arg Val Gly Thr
50          55          60
Gly Gly Trp Ser Pro Ala Asp Ser Asn Ala Gln Gln Trp Leu Gln Met
65          70          75          80
Asp Leu Gly Asn Arg Val Glu Ile Thr Ala Val Ala Thr Gln Gly Arg
85          90          95
Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp
100         105         110
Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr
115         120         125
Phe Ala Gly Asn Met Asn Ala Asp Ser Val Val His His Lys Leu Leu
130         135         140
His Ser Val Arg Ala Arg Phe Val Arg Phe Val Pro Leu Glu Trp Asn
145         150         155         160
Pro Ser Gly Lys Ile Gly Met Arg Val Glu Val Tyr Gly Cys Ser Tyr
165         170         175
Lys Ser Asp Val Ala Asp Phe Asp Gly Arg Ser Ser Leu Leu Tyr Arg
180         185         190
Phe Asn Gln Lys Leu Met Ser Thr Leu Lys Asp Val Ile Ser Leu Lys
195         200         205
Phe Lys Ser Met Gln Gly Asp Gly Val Leu Phe His Gly Glu Gly Gln
210         215         220
Arg Gly Asp His Ile Thr Leu Glu Leu Gln Lys Gly Arg Leu Ala Leu
225         230         235         240
His Leu Asn Leu Gly Asp Ser Lys Ala Arg Leu Ser Ser Ser Leu Pro
245         250         255
Ser Ala Thr Leu Gly Ser Leu Leu Asp Gln His Trp His Xaa Val
260         265         270
Leu Ile Glu Arg Val Gly Lys Gln Val Asn Phe Thr Val Asp Lys His
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Thr Gln His Phe Arg Thr Lys Gly Glu Thr Asp Ala Leu Asp Ile Asp
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Ile Thr Phe Val Asn Ser Ser Gly Ser Tyr Leu Leu Leu Pro Gly Thr  
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Cys Glu Cys Gly Leu Asp Glu Ser Cys Leu Asp Ile Gln His Phe Cys  
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Ser Phe Lys Asp His Leu Pro Val Thr Gln Ile Val Ile Thr Asp Thr  
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Asp Arg Ser Asn Ser Glu Ala Ala Trp Arg Ile Gly Pro Leu Arg Cys  
770 775 780  
Tyr Gly Asp Arg Glu Tyr Lys Ile Glu Arg Ser Phe Leu Ser Ala Leu  
785 790 795 800  
His Glu His Lys Met Phe Leu Leu Pro Tyr Pro Phe Ser Leu Gln Cys  
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 Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp  
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<220>

<221> VARIANT

<222> (1)...(1307)

<223> Xaa = Any Amino Acid

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Pro Leu Ala Ser Leu Leu Ser Pro Met Ala Phe Ser Ser Ser Ser Asp
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Leu Thr Gly Thr His Ser Pro Ala Gln Leu Asn Trp Arg Val Gly Thr
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Tyr	Gly	Ser	Ser	Asp	Trp	Val	Thr	Ser	Tyr	Ser	Leu	Met	Phe	Ser	Asp	100	105		110
Thr	Gly	Arg	Asn	Trp	Lys	Gln	Tyr	Lys	Gln	Glu	Asp	Ser	Ile	Trp	Thr	115	120		125
Phe	Ala	Gly	Asn	Met	Asn	Ala	Asp	Ser	Val	Val	His	His	Lys	Leu	Leu	130	135	140	
His	Ser	Val	Arg	Ala	Arg	Phe	Val	Arg	Phe	Val	Pro	Leu	Glu	Trp	Asn	145	150	155	160
Pro	Ser	Gly	Lys	Ile	Gly	Met	Arg	Val	Glu	Val	Tyr	Gly	Cys	Ser	Tyr	165	170		175
Lys	Ser	Asp	Val	Ala	Asp	Phe	Asp	Gly	Arg	Ser	Ser	Leu	Leu	Tyr	Arg	180	185		190
Phe	Asn	Gln	Lys	Leu	Met	Ser	Thr	Leu	Lys	Asp	Val	Ile	Ser	Leu	Lys	195	200	205	
Phe	Lys	Ser	Met	Gln	Gly	Asp	Gly	Val	Leu	Phe	His	Gly	Glu	Gly	Gln	210	215	220	
Arg	Gly	Asp	His	Ile	Thr	Leu	Glu	Leu	Gln	Lys	Gly	Arg	Leu	Ala	Leu	225	230	235	240
His	Leu	Asn	Leu	Gly	Asp	Ser	Lys	Ala	Arg	Leu	Ser	Ser	Ser	Leu	Pro	245	250		255
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Leu	Ile	Glu	Arg	Val	Gly	Lys	Gln	Val	Asn	Phe	Thr	Val	Asp	Lys	His	275	280	285	
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Lys	Asp	Gly	Leu	Leu	Leu	Ser	Thr	Glu	Leu	Ser	Glu	Gly	Ser	Gly	Thr	405	410		415
Leu	Leu	Leu	Ser	Leu	Glu	Gly	Gly	Ile	Leu	Arg	Leu	Val	Ile	Gln	Lys	420	425		430
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Val	Gln	Ile	Tyr	Ser	Gly	Asn	Ser	Tyr	Tyr	Phe	Gly	Gly	Cys	Pro	Asp	485	490		495
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Thr	Arg	Val	Arg	Gly	Ala	Asn	Pro	Glu	Lys	Pro	Tyr	Ala	Met	Ala	Leu
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<213> homo sapiens

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 <223> Xaa = Any Amino Acid

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 Lys Ser Asp Val Ala Asp Phe Asp Gly Arg Ser Ser Leu Leu Tyr Arg  
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 260 265 270  
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 Thr Gln His Phe Arg Thr Lys Gly Glu Thr Asp Ala Leu Asp Ile Asp  
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 Tyr Glu Gly Asn Val Thr Phe Ser Cys Ser Glu Pro Gln Ile Val Pro  
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 Ile Thr Phe Val Asn Ser Ser Gly Ser Tyr Leu Leu Leu Pro Gly Thr  
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Thr	Glu	Asp	Lys	Ile	Trp	Thr	Ser	Val	Gln	His	Asn	Asn	Thr	Glu	Leu	
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Cys	Glu	Cys	Gly	Leu	Asp	Glu	Ser	Cys	Leu	Asp	Ile	Gln	His	Phe	Cys	
			675				680				685					
Asn	Cys	Asp	Ala	Asp	Lys	Asp	Glu	Trp	Thr	Asn	Asp	Thr	Gly	Phe	Leu	
		690				695					700					
Ser	Phe	Lys	Asp	His	Leu	Pro	Val	Thr	Gln	Ile	Val	Ile	Thr	Asp	Thr	
					710					715					720	
Asp	Arg	Ser	Asn	Ser	Glu	Ala	Ala	Trp	Arg	Ile	Gly	Pro	Leu	Arg	Cys	
					725				730					735		
Tyr	Gly	Asp	Arg	Arg	Phe	Trp	Asn	Ala	Val	Ser	Phe	Tyr	Thr	Glu	Ala	
					740			745					750			
Ser	Tyr	Leu	His	Phe	Pro	Thr	Phe	His	Ala	Glu	Phe	Ser	Ala	Asp	Ile	
		755					760					765				
Ser	Phe	Phe	Phe	Lys	Thr	Thr	Ala	Leu	Ser	Gly	Val	Phe	Leu	Glu	Asn	
		770				775					780					

Leu	Gly	Ile	Lys	Asp	Phe	Ile	Arg	Leu	Glu	Ile	Ser	Ser	Pro	Ser	Glu	785	790	795	800
Ile	Thr	Phe	Ala	Ile	Asp	Val	Gly	Asn	Gly	Pro	Val	Glu	Leu	Val	Val	805	810	815	
Gln	Ser	Pro	Ser	Leu	Leu	Asn	Asp	Asn	Gln	Trp	His	Tyr	Val	Arg	Ala	820	825	830	
Glu	Arg	Asn	Leu	Lys	Glu	Thr	Ser	Leu	Gln	Val	Asp	Asn	Leu	Pro	Arg	835	840	845	
Ser	Thr	Arg	Glu	Thr	Ser	Glu	Gly	His	Phe	Arg	Leu	Gln	Leu	Asn		850	855	860	
Ser	Gln	Leu	Phe	Val	Gly	Gly	Thr	Ser	Ser	Arg	Gln	Lys	Gly	Phe	Leu	865	870	875	880
Gly	Cys	Ile	Arg	Ser	Leu	His	Leu	Asn	Gly	Gln	Lys	Met	Asp	Leu	Glu	885	890	895	
Glu	Arg	Ala	Lys	Val	Thr	Ser	Gly	Val	Arg	Pro	Gly	Cys	Pro	Gly	His	900	905	910	
Cys	Ser	Ser	Tyr	Gly	Ser	Ile	Cys	His	Asn	Gly	Gly	Lys	Cys	Val	Glu	915	920	925	
Lys	His	Asn	Gly	Tyr	Leu	Cys	Asp	Cys	Thr	Asn	Ser	Pro	Tyr	Glu	Gly	930	935	940	
Pro	Phe	Cys	Lys	Lys	Glu	Val	Ser	Ala	Val	Phe	Glu	Ala	Gly	Thr	Ser	945	950	955	960
Val	Thr	Tyr	Met	Phe	Gln	Glu	Pro	Tyr	Pro	Val	Thr	Lys	Asn	Ile	Ser	965	970	975	
Leu	Ser	Ser	Ser	Ala	Ile	Tyr	Thr	Asp	Ser	Ala	Pro	Ser	Lys	Glu	Asn	980	985	990	
Ile	Ala	Leu	Ser	Phe	Val	Thr	Thr	Gln	Ala	Pro	Ser	Leu	Leu	Leu	Phe	995	1000	1005	
Ile	Asn	Ser	Ser	Ser	Gln	Asp	Phe	Val	Val	Val	Leu	Leu	Cys	Lys	Asn	1010	1015	1020	
Gly	Ser	Leu	Gln	Val	Arg	Tyr	His	Leu	Asn	Lys	Glu	Glu	Thr	His	Val	1025	1030	1035	1040
Phe	Thr	Ile	Asp	Ala	Asp	Asn	Phe	Ala	Asn	Arg	Arg	Met	His	His	Leu	1045	1050	1055	
Lys	Ile	Asn	Arg	Glu	Gly	Arg	Glu	Leu	Thr	Ile	Gln	Met	Asp	Gln	Gln	1060	1065	1070	
Leu	Arg	Leu	Ser	Tyr	Asn	Phe	Ser	Pro	Glu	Val	Glu	Phe	Arg	Val	Ile	1075	1080	1085	
Arg	Ser	Leu	Thr	Leu	Gly	Lys	Val	Thr	Glu	Asn	Leu	Gly	Leu	Asp	Ser	1090	1095	1100	
Glu	Val	Ala	Lys	Ala	Asn	Ala	Met	Gly	Phe	Ala	Gly	Cys	Met	Ser	Ser	1105	1110	1115	1120
Val	Gln	Tyr	Asn	His	Ile	Ala	Pro	Leu	Lys	Ala	Ala	Leu	Arg	His	Ala	1125	1130	1135	
Thr	Val	Ala	Pro	Val	Thr	Val	His	Gly	Thr	Leu	Thr	Glu	Ser	Ser	Cys	1140	1145	1150	
Gly	Phe	Met	Val	Asp	Ser	Asp	Val	Asn	Ala	Val	Thr	Thr	Val	His	Ser	1155	1160	1165	
Ser	Ser	Asp	Pro	Phe	Gly	Lys	Thr	Asp	Glu	Arg	Glu	Pro	Leu	Thr	Asn	1170	1175	1180	
Ala	Val	Arg	Ser	Asp	Ser	Ala	Val	Ile	Gly	Gly	Val	Ile	Ala	Val	Val	1185	1190	1195	1200
Ile	Phe	Ile	Ile	Phe	Cys	Ile	Ile	Gly	Ile	Met	Thr	Arg	Phe	Leu	Tyr	1205	1210	1215	
Gln	His	Lys	Gln	Ser	His	Arg	Thr	Ser	Gln	Met	Lys	Glu	Lys	Glu	Tyr	1220	1225	1230	

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 Thr Val Ser Glu Cys Lys Arg Glu Tyr Phe Ile  
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 <212> DNA  
 <213> homo sapiens

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 <211> 35  
 <212> PRT  
 <213> homo sapiens

<400> 6  
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 His Glu Cys  
 35

<210> 7  
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 <212> DNA  
 <213> homo sapiens

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 cacaagctat tgcactcagt gagagcccga tttgttcgct ttgtgcccct ggaatggaat 480  
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 ctcaaagatg tgatctccct gaagttcaag agcatgcaag gagatggggt cctgttccat 660  
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 <212> PRT  
 <213> homo sapiens

<400> 8  
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Pro Leu Ala Ser Leu Leu Ser	Pro Met Ala Phe Ser Ser Ser Ser Asp	
35	40	45
Leu Thr Gly Thr His Ser Pro	Ala Gln Leu Asn Trp Arg Val Gly Thr	
50	55	60
Gly Gly Trp Ser Pro Ala Asp	Ser Asn Ala Gln Trp Leu Gln Met	
65	70	75
Asp Leu Gly Asn Arg Val Glu Ile Thr	Ala Val Ala Thr Gln Gly Arg	
85	90	95
Tyr Gly Ser Ser Asp Trp Val Thr	Ser Tyr Ser Leu Met Phe Ser Asp	
100	105	110
Thr Gly Arg Asn Trp Lys Gln Tyr	Lys Gln Glu Asp Ser Ile Trp Thr	
115	120	125
Phe Ala Gly Asn Met Asn Ala Asp	Ser Val Val His His Lys Leu Leu	
130	135	140
His Ser Val Arg Ala Arg Phe Val	Arg Phe Val Pro Leu Glu Trp Asn	
145	150	155
Pro Ser Gly Lys Ile Gly Met Arg	Val Glu Val Tyr Gly Cys Ser Tyr	
165	170	175
Lys Ser Asp Val Ala Asp Phe Asp	Gly Arg Ser Ser Leu Leu Tyr Arg	
180	185	190
Phe Asn Gln Lys Leu Met Ser Thr	Leu Lys Asp Val Ile Ser Leu Lys	
195	200	205
Phe Lys Ser Met Gln Gly Asp Gly	Val Leu Phe His Gly Glu Gly Gln	
210	215	220
Arg Gly Asp His Ile Thr Leu Glu	Leu Gln Lys Gly Arg Leu Ala Leu	
225	230	235
His Leu Asn Leu Val Val Cys Ser	Ser Pro	
245	250	

<210> 9  
 <211> 840  
 <212> DNA  
 <213> homo sapiens

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 agagttggaa ctggcggttg gtccccagca gattccaatg ctcaacagtg gctccagatg 240  
 gacctgggaa acagagtaga gattacagca gtggccacgc aggaagata cggaagctct 300  
 gactgggtga cgagttacag cctgatgttc agtgacacag gacgcaactg gaaacagtac 360  
 aaacaagaag acagcatctg gacctttgca ggaaacatga atgctgacag cgtgggtgcac 420  
 cacaagctat tgcactcagt gagagcccga tttgttcgct ttgtgcccct ggaatggaat 480  
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 gctgactttg atggccgaag ctcaactctg tacaggttca atcagaagtt gatgagtact 600  
 ctcaaagatg tgatctccct gaagttcaag agcatgcaag gagatggggt cctgttccat 660  
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 cacctcaatt tgggtgacag caaagcgcgg ctaagcactt gccctctgcc accctgggca 780  
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<210> 10  
 <211> 279  
 <212> PRT  
 <213> homo sapiens



<220>  
 <221> VARIANT  
 <222> (1)...(279)  
 <223> Xaa = Any Amino Acid

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Gly	Leu	Trp	His	Leu	Gly	Leu	Thr	Ala	Thr	Asn	Tyr	Asn	Cys	Asp	Asp
			20					25					30		
Pro	Leu	Ala	Ser	Leu	Leu	Ser	Pro	Met	Ala	Phe	Ser	Ser	Ser	Ser	Asp
		35					40					45			
Leu	Thr	Gly	Thr	His	Ser	Pro	Ala	Gln	Leu	Asn	Trp	Arg	Val	Gly	Thr
	50					55					60				
Gly	Gly	Trp	Ser	Pro	Ala	Asp	Ser	Asn	Ala	Gln	Gln	Trp	Leu	Gln	Met
65					70				75						80
Asp	Leu	Gly	Asn	Arg	Val	Glu	Ile	Thr	Ala	Val	Ala	Thr	Gln	Gly	Arg
			85					90					95		
Tyr	Gly	Ser	Ser	Asp	Trp	Val	Thr	Ser	Tyr	Ser	Leu	Met	Phe	Ser	Asp
			100					105					110		
Thr	Gly	Arg	Asn	Trp	Lys	Gln	Tyr	Lys	Gln	Glu	Asp	Ser	Ile	Trp	Thr
	115						120					125			
Phe	Ala	Gly	Asn	Met	Asn	Ala	Asp	Ser	Val	Val	His	His	Lys	Leu	Leu
	130					135					140				
His	Ser	Val	Arg	Ala	Arg	Phe	Val	Arg	Phe	Val	Pro	Leu	Glu	Trp	Asn
145					150					155					160
Pro	Ser	Gly	Lys	Ile	Gly	Met	Arg	Val	Glu	Val	Tyr	Gly	Cys	Ser	Tyr
			165					170					175		
Lys	Ser	Asp	Val	Ala	Asp	Phe	Asp	Gly	Arg	Ser	Ser	Leu	Leu	Tyr	Arg
			180					185					190		
Phe	Asn	Gln	Lys	Leu	Met	Ser	Thr	Leu	Lys	Asp	Val	Ile	Ser	Leu	Lys
	195						200					205			
Phe	Lys	Ser	Met	Gln	Gly	Asp	Gly	Val	Leu	Phe	His	Gly	Glu	Gly	Gln
	210				215						220				
Arg	Gly	Asp	His	Ile	Thr	Leu	Glu	Leu	Gln	Lys	Gly	Arg	Leu	Ala	Leu
225					230				235						240
His	Leu	Asn	Leu	Gly	Asp	Ser	Lys	Ala	Arg	Leu	Ser	Thr	Cys	Pro	Leu
			245					250					255		
Pro	Pro	Trp	Ala	Ala	Ser	Trp	Met	Thr	Ser	Thr	Gly	Thr	Xaa	Ser	Ser
			260					265					270		
Leu	Ser	Gly	Trp	Ala	Ser	Arg									
			275												

<210> 11  
 <211> 1749  
 <212> DNA  
 <213> homo sapiens

<400> 11

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atggcttttt	ccagttcctc	agacctcact	ggcactcaca	gcccagctca	actcaactgg	180
agagttggaa	ctggcgggtg	gtccccagca	gattccaatg	ctcaacagtg	gctccagatg	240
gacctgggaa	acagagtaga	gattacagca	gtggccacgc	aggaagata	cggaagctct	300
gactgggtga	cgagttacag	cctgatgttc	agtgacacag	gacgcaactg	gaaacagtac	360
aaacaagaag	acagcatctg	gacctttgca	ggaaacatga	atgctgacag	cgtggtgcac	420

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cccagtggga agattggcat gagagtcgag gtctacggat gtccctataa atcagacgtt 540
gctgactttg atggccgaag ctcaattctg tacaggttca atcagaagtt gatgagtact 600
ctcaaagatg tgatctccct gaagtccaag agcatgcaag gagatggggt cctgttccat 660
ggagaaggtc agcgtggaga ccacatcacc ttggaactcc agaaggggag gctcgcccta 720
cacctcaatt tgggtgacag caaagcgcg ctcagcagca gcttgccctc tgccaccctg 780
ggcagcctcc tggatgacca gcaactggac tyggtcctca ttgagcgggt gggcaagcag 840
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<210> 12

<211> 582

<212> PRT

<213> homo sapiens

<220>

<221> VARIANT

<222> (1)...(582)

<223> Xaa = Any Amino Acid

<400> 12

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Gly Leu Trp His Leu Gly Leu Thr Ala Thr Asn Tyr Asn Cys Asp Asp
20          25          30
Pro Leu Ala Ser Leu Leu Ser Pro Met Ala Phe Ser Ser Ser Ser Asp
35          40          45
Leu Thr Gly Thr His Ser Pro Ala Gln Leu Asn Trp Arg Val Gly Thr
50          55          60
Gly Gly Trp Ser Pro Ala Asp Ser Asn Ala Gln Gln Trp Leu Gln Met
65          70          75          80
Asp Leu Gly Asn Arg Val Glu Ile Thr Ala Val Ala Thr Gln Gly Arg
85          90          95
Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp
100         105         110
Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr
115         120         125
Phe Ala Gly Asn Met Asn Ala Asp Ser Val Val His His Lys Leu Leu
130         135         140
His Ser Val Arg Ala Arg Phe Val Arg Phe Val Pro Leu Glu Trp Asn
145         150         155         160
Pro Ser Gly Lys Ile Gly Met Arg Val Glu Val Tyr Gly Cys Ser Tyr

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<212> DNA  
<213> homo sapiens

<400> 13

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agagttggaa ctggcggttg gtccccagca gattccaatg ctcaacagtg gctccagatg    240
gacctgggaa acagagtaga gattacagca gtggccacgc agggaagata cggaagctct    300
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gatgaagcag ccccccggc tccagacagc acttgggtgc agatttattc tggaaatagc   1320
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ggactacctt ctattgtaac tgcagtgaac caagttacac tgggtgccacc tgccacaact   1440
ccatctacga gcaatcctgc gaggtgtaca ggcaccaggg gaatacagcc ggcttcttct   1500
acatcgactc agatggcagc ggcccactgg gacctctcca ggtgtactgc aatatcactg   1560
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<210> 14

<211> 534

<212> PRT

<213> homo sapiens

<220>

<221> VARIANT

<222> (1)...(534)

<223> Xaa = Any Amino Acid

<400> 14

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Gly Leu Trp His Leu Gly Leu Thr Ala Thr Asn Tyr Asn Cys Asp Asp
      20             25             30
Pro Leu Ala Ser Leu Leu Ser Pro Met Ala Phe Ser Ser Ser Ser Asp
      35             40             45
Leu Thr Gly Thr His Ser Pro Ala Gln Leu Asn Trp Arg Val Gly Thr
      50             55             60
Gly Gly Trp Ser Pro Ala Asp Ser Asn Ala Gln Gln Trp Leu Gln Met
      65             70             75             80
Asp Leu Gly Asn Arg Val Glu Ile Thr Ala Val Ala Thr Gln Gly Arg
      85             90             95
Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp
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<210> 15  
 <211> 2238  
 <212> DNA  
 <213> homo sapiens

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<400> 15
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agagttggaa ctggcgggtg gtccccagca gattccaatg ctcaacagtg gctccagatg    240
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<210> 16  
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 <213> homo sapiens

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 <223> Xaa = Any Amino Acid

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Pro	Leu	Ala	Ser	Leu	Leu	Ser	Pro	Met	Ala	Phe	Ser	Ser	Ser	Ser	Asp	35	40	45	
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Gly	Gly	Trp	Ser	Pro	Ala	Asp	Ser	Asn	Ala	Gln	Gln	Trp	Leu	Gln	Met	65	70	75	80
Asp	Leu	Gly	Asn	Arg	Val	Glu	Ile	Thr	Ala	Val	Ala	Thr	Gln	Gly	Arg	85	90	95	
Tyr	Gly	Ser	Ser	Asp	Trp	Val	Thr	Ser	Tyr	Ser	Leu	Met	Phe	Ser	Asp	100	105	110	
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Phe	Ala	Gly	Asn	Met	Asn	Ala	Asp	Ser	Val	Val	His	His	Lys	Leu	Leu	130	135	140	
His	Ser	Val	Arg	Ala	Arg	Phe	Val	Arg	Phe	Val	Pro	Leu	Glu	Trp	Asn	145	150	155	160
Pro	Ser	Gly	Lys	Ile	Gly	Met	Arg	Val	Glu	Val	Tyr	Gly	Cys	Ser	Tyr	165	170	175	
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Pro	Gln	Ile	Asp	Gly	Leu	Ser	Val	Ser	Phe	Gln	Phe	Arg	Thr	Trp	Asn	385	390	395	400
Lys	Asp	Gly	Leu	Leu	Leu	Ser	Thr	Glu	Leu	Ser	Glu	Gly	Ser	Gly	Thr	405	410	415	
Leu	Leu	Leu	Ser	Leu	Glu	Gly	Gly	Ile	Leu	Arg	Leu	Val	Ile	Gln	Lys	420	425	430	
Met	Thr	Glu	Arg	Val	Ala	Glu	Ile	Leu	Thr	Gly	Ser	Asn	Leu	Asn	Asp	435	440	445	

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<211> 2094

<212> DNA

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<211> 697

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<223> Xaa = Any Amino Acid

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 35             40             45
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 50             55             60
Gly Gly Trp Ser Pro Ala Asp Ser Asn Ala Gln Gln Trp Leu Gln Met
 65             70             75             80
Asp Leu Gly Asn Arg Val Glu Ile Thr Ala Val Ala Thr Gln Gly Arg
 85             90             95
Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp
 100            105            110
Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr
 115            120            125
Phe Ala Gly Asn Met Asn Ala Asp Ser Val Val His His Lys Leu Leu
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Arg	Gly	Asp	His	Ile	Thr	Leu	Glu	Leu	Gln	Lys	Gly	Arg	Leu	Ala	Leu	225	230	235
His	Leu	Asn	Leu	Gly	Asp	Ser	Lys	Ala	Arg	Leu	Ser	Ser	Ser	Leu	Pro	245	250	255
Ser	Ala	Thr	Leu	Gly	Ser	Leu	Leu	Asp	Asp	Gln	His	Trp	His	Xaa	Val	260	265	270
Leu	Ile	Glu	Arg	Val	Gly	Lys	Gln	Val	Asn	Phe	Thr	Val	Asp	Lys	His	275	280	285
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Cys	Met	Arg	Leu	Ile	Phe	Ile	Asp	Asn	Gln	Pro	Lys	Asp	Leu	Ile	Ser	455	460	465
Val	Gln	Gln	Gly	Ser	Leu	Gly	Asn	Phe	Ser	Asp	Leu	His	Ile	Asp	Leu	470	475	480
Cys	Ser	Ile	Lys	Asp	Arg	Cys	Leu	Pro	Asn	Tyr	Cys	Glu	His	Gly	Gly	485	490	495
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Glu	Val	Tyr	Arg	His	Gln	Gly	Asn	Thr	Ala	Gly	Phe	Phe	Tyr	Ile	Asp	530	535	540
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Thr	Glu	Asp	Lys	Ile	Trp	Thr	Ser	Val	Gln	His	Asn	Asn	Thr	Glu	Leu	560	565	570
Thr	Arg	Val	Arg	Gly	Ala	Asn	Pro	Glu	Lys	Pro	Tyr	Ala	Met	Ala	Leu	575	580	585
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<212> PRT

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<223> Xaa = Any Amino Acid

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50      55      60
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Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr
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Pro Ser Gly Lys Ile Gly Met Arg Val Glu Val Tyr Gly Cys Ser Tyr
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Phe Asn Gln Lys Leu Met Ser Thr Leu Lys Asp Val Ile Ser Leu Lys
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Leu Ile Glu Arg Val Gly Lys Gln Val Asn Phe Thr Val Asp Lys His
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Tyr Glu Leu Ser Phe Gly Gly Ile Pro Val Pro Gly Lys Pro Gly Thr

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 Cys Glu Cys Gly Leu Asp Glu Ser Cys Leu Asp Ile Gln His Phe Cys  
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 Ser Phe Lys Asp His Leu Pro Val Thr Gln Ile Val Ile Thr Asp Thr

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Tyr Gly Asp Arg Glu Tyr Lys Ile Glu Arg Ser Phe Leu Ser Ala Leu		
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His Glu His Lys Met Phe Leu Leu Pro Tyr Pro Phe Ser Leu Gln Cys		800
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 Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr  
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 Pro Ser Gly Lys Ile Gly Met Arg Val Glu Val Tyr Gly Cys Ser Tyr  
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Thr Glu Asn Asp Lys Pro Cys

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Gln Ile Val Ile Thr Asp Thr Asp Arg Ser Asn Ser Glu Ala Ala Trp		750
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Arg Ile Gly Pro Leu Arg Cys Tyr Gly Asp Arg Arg Phe Trp Asn Ala		765
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Val Ser Phe Tyr Thr Glu Ala Ser Tyr Leu His Phe Pro Thr Phe His		780
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	805	810
Ser Gly Val Phe Leu Glu Asn Leu Gly Ile Lys Asp Phe Ile Arg Leu		815
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Gln Trp His Tyr Val Arg Ala Glu Arg Asn Leu Lys Glu Thr Ser Leu		860
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Gln Val Asp Asn Leu Pro Arg Ser Thr Arg Glu Thr Ser Glu Glu Gly		875
	885	890
His Phe Arg Leu Gln Leu Asn Ser Gln Leu Phe Val Gly Gly Thr Ser		895
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Ser Arg Gln Lys Gly Phe Leu Gly Cys Ile Arg Ser Leu His Leu Asn		910
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Gly Gln Lys Met Asp Leu Glu Glu Arg Ala Lys Val Thr Ser Gly Val		925
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Arg Pro Gly Cys Pro Gly His Cys Ser Ser Tyr Gly Ser Ile Cys His		940
	945	950
Asn Gly Gly Lys Cys Val Glu Lys His Asn Gly Tyr Leu Cys Asp Cys		955
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	980	985
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Pro Val Thr Lys Asn Ile Ser Leu Ser Ser Ser Ala Ile Tyr Thr Asp		1005
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Ser Ala Pro Ser Lys Glu Asn Ile Ala Leu Ser Phe Val Thr Thr Gln		1020
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Ala Pro Ser Leu Leu Leu Phe Ile Asn Ser Ser Ser Gln Asp Phe Val		1035
	1045	1050
Val Val Leu Leu Cys Lys Asn Gly Ser Leu Gln Val Arg Tyr His Leu		1055
	1060	1065
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Thr Ile Gln Met Asp Gln Gln Leu Arg Leu Ser Tyr Asn Phe Ser Pro		1100
	1105	1110
Glu Val Glu Phe Arg Val Ile Arg Ser Leu Thr Leu Gly Lys Val Thr		1115
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Gly Gly Val Ile Ala Val Val Ile Phe Ile Ile Phe Cys Ile Ile Gly		
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Gln Met Lys Glu Lys Glu Tyr Pro Glu Asn Leu Asp Ser Ser Phe Arg		
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Phe Ile

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<211> 3528

<212> DNA

<213> Homo sapiens

<400> 25

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<211> 1175

<212> PRT

<213> Homo sapiens

<400> 26

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Gly	Asp	Ser	Lys	Ala	Arg	Leu	Ser	Ser	Ser	Leu	Pro	Ser	Ala	Thr	Leu
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Gly	Ser	Leu	Leu	Asp	Asp	Gln	His	Trp	His	Ser	Val	Leu	Ile	Glu	Arg
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Val	Gly	Lys	Gln	Val	Asn	Phe	Thr	Val	Asp	Lys	His	Thr	Gln	His	Phe	145	150	155	160
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